

phosphites, organic borates, and water so that when said precursor of a metal oxide is a tin oxide precursor and said accelerant includes water, said composition also contains at least one of said organic phosphites or organic borates.

226
Claim 31. (Amended Twice) A process for forming an oxide composition comprising oxidizing a gaseous composition comprising a metal oxide precursor and an accelerant selected from the group consisting of phosphites, borates, water, alkyl phosphine, arsine and borane derivatives, PH_3 , AsH_3 , B_2H_6 , O_2 , N_2O , NF_3 , NO_2 and CO_2 so that when said precursor of a metal oxide is a tin oxide precursor and said accelerant includes water, said composition also contains at least one of said phosphites or borates.

The Amendments

The applicants have amended claims 1, 5, 23 and 25 to indicate that the composition employed is gaseous at a temperature below either 200°C (Claims 1, 23 and 25) or 175°C (Claim 5). Applicants' original amendment to the composition claims of the parent application to convert them to method claims did not clearly indicate that the composition has the properties of a gas at the temperatures recited in Claims 1, 5, 23 and 25. These claims, without the present amendment, might wrongly indicate that applicants' intended to carry out the process at the recited temperatures rather than having these temperatures define the gaseous composition. This should be apparent from the other claims in the application such as Claim 25 which originally described the deposition process as taking place at from about 450° to 650°C, and accordingly the recitation also of the 200°C temperature could only refer to the employment of a

LAW OFFICES

FINNEGAN, HENDERSON,
FARABOW, GARRETT,
& DUNNER, L.L.P.
1300 I STREET, N. W.
WASHINGTON, DC 20005
202-408-4000

composition in the gaseous state below this temperature.

The amendments to Claims 28 and 31 follow the language of Claim 33 of the parent reissue application, Serial No. 08/544,212, filed October 17, 1995, which describes the claimed film as the deposition product of various accelerants and metal oxides so that when the metal oxide is a tin oxide precursor and the accelerant includes water, the composition also contains at least one of the phosphite or borate accelerants.

Applicants have taken this language and included it in Claims 28 and 31 in order to distinguish O'Dowd et al. U. S. Patent No. 4,880,664 (O'Dowd) which the Examiner applied in the October 31 Office Action. O'Dowd describes the use of water and alcohol in the deposition of a tin oxide film on a substrate, whereas the present amendment requires water and at least one other accelerant to deposit the metal oxides when the metal oxide comprises a tin oxide precursor. Column 4, line 27 of Russo et al. support applicants' claim to mixtures of accelerants.

The Rejection Under 35 U.S.C. § 102(b) and Traverse

The Examiner rejects claims 28, 29, 31, and 32 under 35 U.S.C. §102(b) as anticipated by O'Dowd. Applicants traverse the rejection and request further consideration and reexamination.

The Examiner has taken the position that the O'Dowd patent abstract teaches a CVD source material comprising a tin oxide precursor and water. Applicants point out that O'Dowd also requires an alcohol in combination with the water, and with this combination controls the thickness and degree of texture of a tin oxide layer deposited by the composition.

LAW OFFICES

FINNEGAN, HENDERSON,
FARABOW, GARRETT,
& DUNNER, L.L.P.
1300 I STREET, N. W.
WASHINGTON, DC 20005
202-408-4000

Applicants' amendments to claims 28 and 31 distinguish O'Dowd by specifying in the process that where the metal oxide precursor is a tin oxide precursor and the accelerant includes water, the composition also contains at least one of the other phosphite or borate accelerants. O'Dowd neither teaches nor suggests the use of a phosphite or borate accelerant.

The Rejection Under 35 U.S.C. § 103(a) and Traverse

The Examiner rejects claim 30 under 35 U.S.C. §103(a) as unpatentable over O'Dowd in view of Gordon, United States Patent Number 4,308,316. Applicants traverse the rejection and request further consideration and reexamination.

Applicants distinguish O'Dowd for the reasons given above.

The Examiner argues claim 30 requires a process that comprises a precursor for silicon oxide, whereas Gordon teaches addition of a silicon oxide precursor to a CVD source material to form metal oxide films having selective refractive indices. The Examiner points to example 4 of Gordon and then concludes the skilled artisan would find it obvious to use a combination of a tin oxide precursor and a silicon oxide precursor, because Gordon teaches films having intermediate refractive indices that prevent iridescence.

Gordon does not teach the use of applicants' accelerants as set out in claim 28 as amended and accordingly, claim 30 dependent on claim 28 also carries this distinction over the Gordon reference. These claims require an accelerant based on either an organic phosphite, organic borate or water which the Gordon reference neither teaches nor suggests. In fact, Gordon teaches the undesirability of water, cautioning

against it in example 2, which shows water causes an undesirable prehydrolysis reaction with an organoaluminum compound (aluminum-2, 4-pentanedionate).

In view of the Example 2 disclosure of Gordon, the skilled artisan would not combine the teachings of Gordon with O'Dowd to arrive at applicants' invention since Gordon warns against the use of water, whereas O'Dowd employs it in depositing a tin oxide composition, clearly indicating this would not provide the motivation to the skilled artisan to combine the teachings of the two references. Cf., MPEP Section 2143.01, Rev. 1, Feb. 2000, pp. 2100-98 to 2100-99 and cases cited therein. Gordon in this respect teaches against the combination of references.

The Rejection Under 35 U.S.C. § 251 and Traverse

The Examiner rejects claims 28-32 under 35 U.S.C. § 251 as improperly recapturing claimed subject matter deliberately canceled in the application for the Russo et al. patent that forms the basis for the present reissue. The Examiner cites Ball Corp. v. United States, 729 F.2d 1429, 221 U.S.P.Q. 289, 295 (Fed. Cir. 1984) for the holding that "[t]he recapture rule bars the patentee from acquiring, through reissue, claims that are of the same or broader scope than those claims that were canceled from the original application." (Emphasis added.) Applicants traverse the rejection and request further consideration and reexamination.

The Examiner argues that the prosecution history shows the present application contains broad claims to a process of forming an oxide composition, but that applicant originally filed method claims in United States Application Serial No. 07/814,352 filed

LAW OFFICES

FINNEGAN, HENDERSON,
FARABOW, GARRETT,
& DUNNER, L.L.P.
1300 I STREET, N. W.
WASHINGTON, DC 20005
202-408-4000

December 27, 1991 which applicants will refer to as the grandparent application.¹

After tracing the prosecution history of the grandparent application up through the parent application, the Examiner correctly notes the grandparent application had a restriction requirement imposed and that applicants elected to prosecute the process claims in that application. The Examiner then argues that applicants, by amending the parent application, narrowed the claims "apparently in response to the rejection made in 07/814352 [the grandparent application]." (October 31 Office Action, page 3, last paragraph.) Applicants did no such thing.

The Examiner compares the process claims of the present reissue application to the composition claims presented in the parent application and the amendments applicants made to those composition claims. Applicants, however, never presented or canceled any process claims such as reissue claims 28-32 in the parent application, and accordingly, the Examiner cannot properly come to a conclusion that applicants have recaptured subject matter that they gave up in that application.²

¹ This discussion will refer to the various applications which form the basis of the present reissue application as the "great grandparent application," Serial No. 07/814,366, filed December 26, 1991 and the "grandparent application" filed the following day, Serial No. 07/814,352 filed December 27, 1991. In order to obtain the benefit of these applications in filing abroad, applicants filed a PCT application within one year, claiming priority of the great grandparent and grandparent applications, and added additional disclosure. This is referred to as the "PCT application" Application No. PCT/US92/10873 filed 21 December 1992, designating the United States for filing the application as a continuation in part. The PCT application formed the basis for the "parent application" Serial No. 08/104,125 filed December 13, 1993. The present reissue application is based on all four of these applications.

² As stated by the court in Ball, "Narrower reissue claims are allowable; broader reissue claims or reissue claims of the same scope as the cancelled claims are not. If reissue is sought where claims have not been previously canceled, analysis becomes more difficult. In that case, relative claim scope is not available to illuminate the alleged error." Ball Corp. v. United States, 729

The Examiner cannot look to the prosecution of composition of matter claims in the parent application, (one statutory class of invention) and conclude that applicants gave up rights to process claims in the reissue application (a different statutory class of invention) by the parent application prosecution. The amendments in the parent application, directed toward composition claims, do not carry over to process claims 28-32, since they comprise different statutory classes of inventions. They differ in that infringement of one type of claim doesn't carry any presumption of infringement of the other. Prosecution of the Russo et al. composition claims, therefore, has no bearing on the reissue process claims in the present application.

Applicants point out that they did not respond in writing to the restriction requirement,³ or prior art rejection made in the grandparent application, or through the parent application since not only did the grandparent restriction and rejection fail to carry over to the parent application for reasons that applicants will point out later, but also the grandparent application related to method and article of manufacture claims and the

F.2d at 1434, 221 U.S.P.Q. at 295, and fn. 19. (Emphasis added.)

³ Applicants, however point out they orally traversed a telephone restriction between method and article claims after making an oral provisional election of method claims on August 25, 1992. The Examiner formalized this in a September 28, 1992 Office Action, which the applicants did not respond to but instead, filed the CIP or parent application directed to a composition.

LAW OFFICES

FINNEGAN, HENDERSON,
FARABOW, GARRETT,
& DUNNER, L.L.P.
1300 I STREET, N. W.
WASHINGTON, DC 20005
202-408-4000

parent application contained composition of matter claims.

Although not agreeing with the Examiner that the prosecution of the grandparent application carries over to the present application, applicants will address the recapture argument raised, and show that even this aspect of the rejection has no support in the record.

Applicants have not recaptured claims of the same or broader scope than claims canceled from the grandparent application, and the Examiner cannot look to the Office Actions in the grandparent application as binding on the applicants in any way in the present application as bearing on recapture. Even though rejected on prior art grounds, Applicants' did not cancel any claims in response to a rejection in the grandparent application and did not offer any amendments or arguments to overcome rejections in the grandparent application. As stated in Ball, "where claims have not been previously canceled . . . relative claim scope is not available. . . ." to invoke the recapture rule.⁴ The court must look to other factors to determine how the error arose that gave rise to the reissue.

Accordingly, any subsequent prosecution in the parent application started out with a clean slate. Even though the claims in the grandparent application became abandoned, and applicants filed a continuation-in-part, PCT application, this does not amount to a cancellation of claims in the face of an outstanding rejection.

Filing the PCT application could not amount to a response to the rejection or restriction as revealed by the prosecution history. The abandonment of the great-grandparent and grandparent applications after the applicants filed the PCT application

LAW OFFICES

FINNEGAN, HENDERSON,
FARABOW, GARRETT,
& DUNNER, L.L.P.
1300 I STREET, N. W.
WASHINGTON, DC 20005
202-408-4000

4

Ball supra, note 2

made the rejection and restriction a nullity. The Examiner did not have the opportunity to, and in fact did not make the rejection or restriction final but rather issued a notice of abandonment in both applications on the ground of applicants' failure to respond in writing to the rejections in both. The notices of abandonment in both the great-grandparent and grandparent applications issued in May of 1993, five months after applicants filed the PCT application on December 21, 1992. The prosecution in both did not carry over to the PCT application which conformed to the laws and rules and regulations of the Patent Cooperation Treaty that does not allow for the incorporation of the rejections of these applications into the PCT application.

Filing the parent application as the United States national phase of the PCT application did not resurrect any of the rejections or restrictions in the grandparent application. Those rejections and restrictions died with the notices of abandonment, and applicants' continuing prosecution of the invention in the PCT application did not incorporate or resurrect the rejections in the abandoned applications in the PCT prosecution, and for that matter, the parent application.

Additionally, the Examiner in the parent application did not consider the filing of that application as a response to any of the rejections in the great-grandparent and grandparent applications, but treated the parent application as a new United States Application and did not refuse to acknowledge priority of the great-grandparent or grandparent applications in the United States prosecution.

In any event, the Examiner not making the rejection final, and the applicants' subsequent filing of the CIP application clearly shows that the applicants did not

LAW OFFICES

FINNEGAN, HENDERSON,
FARABOW, GARRETT,
& DUNNER, L.L.P.
1300 I STREET, N. W.
WASHINGTON, DC 20005
202-408-4000

acquiesce to the rejection. Paperless Accounting v. Bay Area Rapid Transit System, 804 F.2d 659, 231 U.S.P.Q. 649 (Fed. Cir. 1987). In Paperless Accounting the Federal Circuit held that the non final rejections in a parent application did not carry over to a continuation-in-part (CIP), and the subsequent filing of the CIP was not an admission of the correctness of the rejection in the parent or acquiescence to the rejection.

As to the restriction requirement, the Patent Office, at the time when the applicants filed the parent application had in fact taken the position that restrictions in predecessor applications do not carry over to subsequently filed continuation-in-part [CIP] applications, but only in continuation applications in file wrapper continuation cases under 37 C.F.R. § 1.62. MPEP § 819, par. 3, p. 800-47, Rev. 2, July 1996.

Although directed to 37 C.F.R. § 1.62 CIP applications, these sections of the MPEP, when applied by analogy to 35 U.S.C. § 111 CIP as well as PCT CIP applications, would lead to the same result because they do not differ substantively from Rule 62 applications but only in matters of form. MPEP § 819 therefore would compel the same conclusion, namely the restrictions in the grandparent application did not carry over to the parent application, because of the latter's CIP status. Since the restriction of the grandparent doesn't affect or carry over to the parent application, the present reissue application also remains free of this restriction.

Conclusions

Summary of Response to the Rejections

The amendments to the present application avoid the O'Dowd reference which requires the combination of water and alcohol in the deposition of tin oxides from a

precursor. This amendment qualifies applicants' claimed process so that when the claimed precursor of a metal oxide is a tin oxide precursor, and the accelerant includes water, the composition also contains at least one phosphite or borate accelerant. O'Dowd does not teach or suggest these phosphites or borates, and therefore does not anticipate applicants' claims or make them obvious.

The skilled artisan would not have motivation to combine O'Dowd and Gordon to arrive at applicants' invention, since Gordon describes the use of water in a metal deposition process, which O'Dowd characterizes as a deleterious component in the process of forming a metal oxide. These references do not make applicants' invention obvious.

Applicants have not recaptured claims of the same or broader scope than claims canceled from the parent or original application. Applicants never presented process or method claims in the parent application, but only the grandparent application. Since applicants filed the parent application as a CIP based on the grandparent application, none of the rejections or restrictions in the grandparent application carried over to the CIP or parent application.

Even though rejected on prior art grounds and restricted, the applicants did not amend the grandparent application, present arguments as to patentability or cancel claims in order to overcome the prior art. The parent application never contained any process claims, and accordingly applicants could not have presented arguments, amended claims or canceled process claims to urge patentability of the process. As stated by the court in Ball, "where claims have not been previously canceled . . . relative claim scope is not available. . . . " to invoke the recapture rule. The court must look to

LAW OFFICES

FINNEGAN, HENDERSON,
FARABOW, GARRETT,
& DUNNER, L.L.P.
1300 I STREET, N. W.
WASHINGTON, DC 20005
202-408-4000

other factors to determine how the error arose that gave rise to the reissue.⁵ Accordingly, the present application does not recapture claims of the same or broader scope than those canceled from the original application.

If filing this amendment requires an extension of time pursuant to 37 C.F.R. §1.136 and payment of an extension fee or other fee, any of which this amendment fails to account for, applicants' attorneys request such an extension and payment of any fees due from their deposit account 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

By: *R. J. Eichelburg*
R. J. Eichelburg
Reg. No. 23,057

Dated: January 26, 2001

5

Id.